

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A data processing method including receiving input data containing a plurality of instruction codes, and judging whether or not a process executed based on the instruction codes contained in the received data is a malicious process, said method comprising:

~~retrieving an instruction code related to a branch instruction from the data;~~

sequentially reading one byte of the input data at a time;

determining whether or not the read data is a branch instruction;

if the read input data is a branch instruction, determining~~judging~~ whether a branch destination address ~~of the branch instruction associated with a branch destination~~ is larger than a branch origin address based only on the one byte of the data read and if the branch destination address is larger than the branch origin address storing the branch destination address and branch origin address;

~~storing the branch origin address associated with the retrieved instruction code and the branch destination address associated with the branch destination of the instruction code when the branch destination address associated with the branch destination is judged to be larger than the branch origin address;~~

determining ~~judging whether or not~~ whether there is a call ~~instruction code for calling an instruction code group for executing a predetermined process is associated with~~ at the branch destination address, and storing a call destination address of the call instruction code if the instruction code is associated with the branch destination address is a call instruction;

~~judging~~determining whether or not the stored call destination address is between the branch origin address and the branch destination address; and

if the stored call destination address is between the branch origin address and the branch destination address concluding that ~~the process executed based on the instruction codes contained in the input data~~ is includes a malicious process, ~~when the instruction code for calling the instruction code group for executing the predetermined process is associated with the branch destination address and the call destination address of the instruction code is between the branch origin address and the branch destination address.~~

2. (Currently Amended) A data processor including means for receiving input data containing a plurality of instruction codes, for ~~judging~~determining whether or not a process executed based on the instruction codes contained in the received data is a malicious process, said data processor comprising:

~~means for retrieving an instruction code related to a branch instruction from the data;~~

means for sequentially reading one byte of the input data at a time;

means for determining whether the read data is a branch instruction;

if the read input data is a branch instruction ~~determining~~judging whether a branch destination address of the branch instruction ~~associated with a branch destination~~ is larger than a branch origin address based only on the one byte of the data read and if the branch destination address is larger than the branch origin address storing the branch destination address and the branch origin address;

~~means for storing the branch origin address associated with the retrieved instruction code and the branch destination address associated with the branch destination of the instruction code when the branch destination address associated with the branch destination is judged to be larger than the branch origin address;~~

~~means for judging/determining whether or not there is a call an instruction code for calling an instruction code group for executing a predetermined process is associated with at the branch destination address; and means for storing a call destination address of the call instruction code if the instruction code is associated with at the branch destination address is a call instruction; and~~

~~means for judging/determining whether or not the stored call destination address is between the branch origin address and the branch destination address; and, wherein~~

~~if the stored call destination address is between the branch origin address and the branch destination address concluding it is concluded that the process executed based on the instruction codes contained in the input data isincludes a malicious process, when the instruction code for calling the instruction code group for executing the predetermined process is associated with the branch destination address and the call destination address of the instruction code is between the branch origin address and the branch destination address.~~

3. (Currently Amended) The data processor as set forth in claim 2, further comprising means for judging whether or not a predetermined character string is associated with a return address of the instruction code group called by the call instruction, wherein if the predetermined character string is associated with the return address, the information indicating that the data is data for executing a malicious process is outputted.

4- 6. (Canceled)

7. (Currently Amended) A computer-readable memory product storing a computer program including causing a computer to judge whether or not a process executed based on input data containing a plurality of instruction codes is a malicious process, the stored computer program comprising:

~~causing the computer to retrieve an instruction code related to a branch instruction from the data;~~

causing the computer to sequentially read one byte of the input data at a time;

causing the computer to determine whether or not the read data is a branch instruction;

if the read input data is branch instruction, causing the computer to judge~~determine~~
whether a branch destination address of the branch instruction~~associated with a branch destination~~ is larger than a branch origin address based only on the one byte of the data read, and
if the branch destination address is larger than the branch origin address causing the computer to
store the branch destination address and branch origin address;

~~causing the computer to store the branch origin address associated with the retrieved instruction code and the branch destination address associated with the branch destination of the instruction code when the branch destination address associated with the branch destination is judged to be larger than the branch origin address;~~

causing the computer to judge-determine whether or not there is a call ~~instruction code~~
~~for calling an instruction code group for executing a predetermined process is associated with at~~

the branch destination address;~~causing the computer and~~ to store a call destination address of the ~~call instruction code~~ if the instruction code ~~is associated with~~ the branch destination address ~~is~~ a call instruction;

causing the computer to ~~judge~~determine whether or not the stored call destination address is between the branch origin address and the branch destination address; and

~~if the stored call destination address is between the branch origin address and the branch destination address~~ causing the computer to conclude that ~~the process executed based on the instruction codes contained in the input data~~ includes a malicious process, ~~when the instruction code for calling the instruction code group for executing the predetermined process is associated with the branch destination address and the call destination address of the instruction code is between the branch origin address and the branch destination address.~~

8. (Currently Amended) A data processor comprising:

an input unit for inputting data containing a plurality of instruction codes;

a storing unit for storing the data input by the input unit; and

a controller capable of performing operations of;

~~retrieving an instruction code related to a branch instruction from the data stored in the storing unit;~~

sequentially reading one byte of the input data at a time;

determining whether or not the read data is a branch instruction;

if the read data is a branch instruction ~~determining~~judging whether a branch destination address ~~of the branch instruction~~ associated with a branch destination is larger than a

branch origin address based only on the one byte of the data read, and if the branch destination address is larger than the branch origin address storing the branch destination address and branch origin address;

~~storing the branch origin address associated with the retrieved instruction code and the branch destination address associated with the branch destination of the instruction code in the storing unit when the branch destination address associated with the branch destination is judged to be larger than the branch origin address;~~

~~judgingdetermining whether or not anthere is a call instruction code for calling an instruction code group for executing a predetermined process is associated withat the branch destination address; and storing a call destination address of the call instruction code in the storing unit if the instruction code is associated withat the branch destination address is a call instruction;~~

~~judgingdetermining whether or not the stored call destination address is between the branch origin address and the branch destination address; and~~

~~if the stored call destination address is between the branch origin address and the branch destination address concluding that the process executed based on the instruction codes contained in theinput data isincludes a malicious process, when the instruction code for calling the instruction code group for executing the predetermined process is associated with the branch destination address and the call destination address of the instruction code is between the branch origin address and the branch destination address.~~

9-10. (Canceled)

11. (Previously Presented) The data processing method according to claim 1, wherein the malicious process causes an erroneous operation in the process executed based on the instruction codes contained in the received data.